



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,131	04/25/2006	Takeshi Hotaka	21713-00028-US1	1417
30678 7590 09/10/2007 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20036			EXAMINER FISCHER, JUSTIN R	
			ART UNIT 1733	PAPER NUMBER
			MAIL DATE 09/10/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/577,131	HOTAKA, TAKESHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Justin R. Fischer	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>42506</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glintz (US 6,672,349) and further in view of Sandstrom (US 5,328,949). Glintz is directed to a runflat tire construction comprising a runflat support member formed of a ring-shaped metal shell 2 and rubber elastic members 21,22. In this instance, Glintz generally teaches the use of elastic rubber compositions having different fillers and additives (Column 4, Lines 22-37). While Glintz fails to disclose a specific composition for the aforementioned rubber elastic members, the claimed rubber composition is consistent with those compositions commonly used in the tire industry (in general). For example, Sandstrom is directed a rubber composition satisfying the claimed invention (including carbon black, silica, and silane coupling agent), wherein said composition is described as providing high strength and abrasion resistance (Abstract, Column 1, Lines 15-30, Column 2, Lines 40-65, and Column 6, Lines 60-65). In this instance, Sandstrom is generally directed to rubber compositions used in the tire industry and one of ordinary skill in the art at the time of the invention would have recognized the disclosed benefits as being desirable in the rubber elastic members of Glintz. Lastly,

Art Unit: 1733

applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed composition.

Regarding claim 2, as is conventional in the tire industry, the rubber composition of Glinz in view of Sandstrom would include sulfur at a loading between 1 and 10 phr (Column 5, Lines 65+).

With respect to claims 3 and 7, the supporting members of Glinz are arranged between the metal shell.

Regarding claims 4, 8, 9, and 17, Glinz suggests the preferred use of aluminum or an aluminum alloy (Column 4, Lines 20-30). One of ordinary skill in the art at the time of the invention would have recognized the language as being generally directed to metallic materials, it being well recognized that steel and stainless steel are two of the most common metallic materials. Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the use of steel or stainless steel.

As to claims 5, 10, 11, 12, and 18-20, one of ordinary skill in the art at the time of the invention would have been able to appropriately select the bond area in order to obtain a sufficient degree of adhesion between the supporting members and the ring torus- absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to have a ratio S/R of at least 4.5. It is noted that this ratio suggests that the minimum bond area increases with an increase in tire size, as would be expected since larger tires would need increased reinforcement.

Art Unit: 1733

With respect to claims 6 and 13-16, it appears from Figure 3 that the bonding surface is comprised of an axial and radial surface.

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin R Fischer  
Primary Examiner  
Art Unit 1733



JRF  
September 6, 2007